

ACORP Appendix 5, DRAFT SURGERY

1. **Major survival surgery.** The *Guide* defines a major survival surgery as a surgery in which a major body cavity is penetrated and exposed or surgery in which substantial impairment of physical or physiological functions is produced. Examples of such surgeries provided in the *Guide* include laparotomy, thoracotomy, craniotomy, joint replacement, and limb amputation.
 - a. Will more than one major survival surgery be performed on any animal as part of the proposed experimental plan?
☐ No. Proceed to item 2.
☐ Yes. Complete item 1.b. and 1.c. below.
 - b. Provide a complete scientific justification for performing more than one major survival surgery on individual animals.
 - c. Give the interval(s) between the multiple surgeries, and the rationale for choosing the interval(s), then proceed to item 2.
2. **Description of Procedure(s).** Describe the surgical procedure(s) in enough detail so that the IACUC reviewers can determine what procedure(s) are actually being performed. If several different surgeries are being performed, be sure to describe each one. When finished, proceed to item 3.
3. Provide the names of the personnel who will perform the surgery; then proceed to item 4. Note that the surgical experience of each person involved in surgery should be listed in item E of the ACORP.
4. Provide the names of the personnel who will perform the anesthetic induction and monitor the animal during surgery. Then proceed to item 5.
5. Provide the building and room number(s) where the surgical procedure(s) will be performed. A dedicated surgical facility must be used for major survival surgeries on non-rodent species (the definition of a major survival surgery is provided in item 1 above). If allowed by local policy, non-survival surgery on non-rodent species and survival surgery on rodent species may be performed in a procedure room or laboratory. Then proceed to item 6.
6. **Pre-operative procedures.** Pre-operative procedures should include all preparations of the animal(s) for surgery. Check and describe which of the following procedures will be performed. Then proceed to item 7.
☐ Fasting (rarely used in rodents or rabbits). Indicate the length of the fasting period.
☐ Withhold water. Indicate the length of time that water will be withheld.
☐ Catheter placement. Indicate the site(s) in which venous catheter(s) will be placed for vascular access during surgery.
☐ Other. Describe other pre-operative procedures.
7. **Pre-operative medications.** Complete the following table. Include any antibiotics, sedatives, or tranquilizers, and the anesthetic agent(s) that will be used to induce anesthesia prior to surgical site preparation; then proceed to item 8.

Agent	Dose (mg/kg) & volume (ml)	Route	Frequency (e.g. times/day)	Duration (e.g. days)

8. **Preparation of the surgical site.** Describe how the surgical site(s) will be prepared prior to surgery. Include details of hair-clipping, skin disinfection, and the use of surgical drapes. Then proceed to item 9.

9. **Intraoperative medications.** Complete the following table including any anesthetic agents, paralyzing agents, fluids, or other pharmaceuticals that will be administered to the animal during surgery. Also include experimental pharmaceuticals. Then proceed to item 10.

Agent	Dose (mg/kg) & volume (ml)	Route	Frequency

10. **Paralyzing agents.** Are any of the above medications considered paralyzing agents?
- ☐ No. Proceed to item 11.
- ☐ Yes. Federal regulations prohibit the use of paralytics (neuromuscular blocking agents) for surgery unless other appropriate anesthetic agents are used to induce a surgical plane of anesthesia. Paralytics do not provide any pain relief; therefore, animals are unable to respond physically to pain because motor reflexes are paralyzed. Justify the use of these agents and indicate how the animals will be monitored to ensure that the depth of anesthesia is sufficient to prevent pain. Then proceed to item 11.
11. **Physical support.** Indicate any physical methods used to support patients during surgery (e.g. heating pads, blankets, etc.); then proceed to item 12.
12. **Intra-operative monitoring.** Describe methods used to monitor the state of anesthesia and general well-being of the animal during surgery. Then proceed to item 13.
13. Will the animals regain consciousness following surgery?
- ☐ No. You have completed this appendix. *No further information is required in this appendix. Return to item T on the ACORP itself.*
- ☐ Yes. Proceed to item 14.
14. **Survival surgery considerations and post-operative care.** Complete items 14.a-f. below. Then proceed to item 15.
- a. How long will the animal(s) survive after surgery? (If multiple surgeries are planned, answer for the last surgery before euthanasia.)
- b. Is the room where the procedures will be performed (listed in item 5 above) suitable for sterile/aseptic surgery?
- c. Indicate which of the following procedures will be used to maintain a sterile field during surgery:
- ☐ Sterile instruments.
- ☐ Surgeon cap.
- ☐ Sterile gloves.
- ☐ Surgeon scrub.

- ☐ Sterile drapes.
- ☐ Sterile gown.
- ☐ Face mask.
- ☐ Other. Describe:

- d. List any physical methods used to support the patients in the immediate post-operative period (e.g., heating pads, blankets, fluids, etc.).
- e. Unless scientifically or otherwise justified to the IACUC's satisfaction, you are obligated to routinely provide post-operative pain relief for all vertebrate animals undergoing survival surgery. Do you plan to use analgesics to provide postoperative pain relief to the animals following surgery?
- ☐ No. Provide a justification for not using postoperative analgesics.
 - ☐ Yes. Complete the following table listing post-operative analgesics agent(s) that will be used after surgery to control pain.

Agent	Dose (mg/kg) & Volume (ml)	Route	Frequency (e.g. times/day)	Duration (e.g. days)

- f. Complete the following table for other medications (such as fluids, antibiotics, anti-coagulants, and other pharmacological agents) that will be administered post-operatively.

Agent	Dose (mg/kg) & Volume (ml)	Route	Frequency (e.g. times/day)	Duration (e.g. days)

15. **Frequency and Responsibility for post-operative care.** Complete items 15.a. and 15.b. below. Then proceed to item 16. The names and after-hours telephone (or other contact) numbers of the personnel listed below must be provided to the VMU staff in case of an emergency.

- a. Give the frequency of postoperative monitoring and how long the monitoring will continue.
- b. Who will be responsible for post-operative care until the animal can ambulate without danger to itself?
- c. Who will be responsible for post-operative care thereafter (including after-hours, weekends, and holidays)?

16. **Post-operative complications.** Complete items 16.a. - d. below; then proceed to item 17.

- a. Describe any possible or expected post-operative complications and what will be done if these complications arise.

- b. Provide criteria by which a decision to euthanize a surgical patient post-operatively will be made.
- c. In case there is an emergency medical situation and you or your staff cannot be reached, identify drugs or classes of drugs that should not be used as part of the treatment plan.
- d. In the event that emergency euthanasia must be performed or an animal is unexpectedly found dead, how should the carcass be handled?

17. **Responsibility for maintaining animal post-surgical medical records.** Who will be responsible for maintaining accurate, daily, post-surgical written medical records?
- ☐ My research staff or I will be responsible. Proceed to item 18 below.
 - ☐ The veterinary staff will be responsible. Proceed to item 18 below.
 - ☐ Local policy does not mandate that postoperative medical records be maintained for the species covered by this ACORP. **You have completed this Appendix. Do not answer item 18 or sign under item 18. Instead, go to item T on the ACORP.**
 - ☐ Other. Please explain, then proceed to item 18 below.

18. **Certifications.** Complete the following; then return to item T on the ACORP and continue.

By my signature, I certify that

- Each patient under observation or treatment will be identified such that care for individual animals can be documented.
- Daily postoperative medical records of the patient will be maintained, including an evaluation of overall health, a description of any complications noted, treatment provided, and the removal of sutures, staples, wound clips, or other such devices.
- Records will document administration of all medications and treatments given to animals, including those given to reduce pain or stress.
- As a minimum, daily records will cover the postoperative period as defined by local policy.
- Each entry in the records will include a signature or the initials of the person making the observation or treatment.
- All records will be readily available to the veterinary staff or the IACUC for review.
- The names and contact numbers of persons to notify or consult in case of emergencies will be provided to the facility manager and veterinarian.

Name of Principal Investigator(s)	Signature(s)	Date